CLAIMS

What is claimed is:

1. A casting system for forming a gas turbine engine component, said system comprising a shaped refractory metal sheet having a plurality of features for forming a plurality of film cooling passages, said features being formed from refractory metal material bent out of said sheet.

2. A casting system according to claim 1, wherein said refractory metal sheet has a leading edge and has a plurality of bent portions adjacent said leading edge.

3. A casting system according to claim 1, wherein said refractory metal sheet has a leading edge, a trailing edge, and a central portion between said leading edge and said trailing edge, and a plurality of bent portions in said central portion.

4. A casting system according to claim 1, wherein said refractory metal sheet is formed from molybdenum or a molybdenum alloy.

5. A casting system according to claim 1, wherein said refractory metal sheet is formed from a material selected from the group consisting of tantalum, niobium, tungsten, alloys thereof, and mixtures thereof.

6. A casting system for forming a gas turbine engine component comprising a metal wall having an airfoil shape and a refractory metal core adjacent said metal wall and having a shape corresponding to the shape of said metal wall.

7. A casting system according to claim 6, wherein said refractory metal wall has a plurality of integrally formed cooling features.

8. A casting system according to claim 6, further comprising a metal structure internal of said refractory metal core.

9. A casting system according to claim 6, wherein said refractory metal core is formed from two pieces of sheet material and said pieces of sheet material being joined together at multiple locations.

10. A casting system according to claim 6, wherein said refractory metal core is formed from a solid forging of refractory metal.

11. A casting system according to claim 6, wherein said refractory metal core is formed from a material selected from the group consisting of molybdenum, tantalum, niobium, tungsten, alloys thereof, and mixtures thereof.

12. A refractory metal core for use in a casting system comprising an outer surface formed from a refractory metal material, said outer surface defining an internal cavity filled with an inert material selected from the group consisting of pressurized inert gas, sand, and ceramic powder.

13. A refractory metal core according to claim 12, wherein said outer surface has a plurality of protrusions.

14. A refractory metal core according to claim 12, wherein said outer surface has a plurality of dimples.

15. A refractory metal core for use in a casting system comprising a honeycomb structure formed from a refractory sheet material, said honeycomb structure having a plurality of dimples internally supported by ribs.